Wayne State University DigitalCommons@WayneState

Gold Humanism Honor Society

School of Medicine

1-1-2011

Brain Candy: Wayne State University School of Medicine Journal of Art and Literature, 3rd Edition

Wayne State University School of Medicine Writing Workshop

Wayne State University School of Medicine Gold Humanism Honor Society

Recommended Citation

Wayne State University School of Medicine Writing Workshop and Wayne State University School of Medicine Gold Humanism Honor Society, "Brain Candy: Wayne State University School of Medicine Journal of Art and Literature, 3rd Edition" (2011). *Gold Humanism Honor Society.* Paper 3.

http://digitalcommons.wayne.edu/ghhs/3

This Article is brought to you for free and open access by the School of Medicine at DigitalCommons@WayneState. It has been accepted for inclusion in Gold Humanism Honor Society by an authorized administrator of DigitalCommons@WayneState.



Brain Candy

Wayne State School of Medicine Journal of Art and Literature 2010-2011

Editors' Note

It is with great excitement and optimism that we bring you the third edition of *Brain Candy*, the Wayne State University School of Medicine Journal of Art and Literature.

Brain Candy was founded in 2008 with the intention of offering a shared creative outlet for the medical community in Detroit. Since its inception, the journal has featured over 150 pages of art and writing by members of the WSU SOM community and beyond.

The third edition of the journal welcomes back writers and artists from the School of Medicine, the WSU Department of English, and the WSU Department of Fine Arts. It also reintroduces the creative efforts of Detroit's "Future Docs," children ages 6 through 12 with a curiosity for the field of medicine. In addition, *Brain Candy* is proud to present the writing of two of the WSU SOM's most accomplished and committed leaders, Dr. Robert R. Frank and Dr. Kertia Black, who will be stepping down this year from their roles as Executive Vice Dean and Vice Dean for Student Affairs, respectively. Finally, the third edition of *Brain Candy* will feature writing presented by members of the WSU SOM Writing Workshop at the University of Iowa's annual conference called *The Examined Life: Writing and the Art of Medicine*.

The work in this journal serves as evidence of the vibrant spirit that keeps the WSU SOM and the City of Detroit moving forward and steadily improving, even during times of hardship. As editors of *Brain Candy*, we hope that you enjoy the writing and art that follows, and we look forward to working with you in the years to come.

Speramus Meliora; Resurget Cineribus, Your Brain Candy Editors

Editors

Sunali Wadehra, Class of 2014 Beth Stallman, Class of 2014 Jessica Heselschwerdt, Class of 2012 Alok Sachdeva, Class of 2011

Faculty Advisor
Howard Fischer, MD

Journal Design Jessica Heselschwerdt, Class of 2012

Cover

Magnetic Resonance Imaging, T1-Weighted Image, Coronal Right Wrist in Oil Pastel by Michelle Sakala, Class of 2011

Produced by the Wayne State University School of Medicine Writing Workshop and the WSU-SOM Gold Humanism Honor Society

Made possible by grants from the WSU-SOM Alumni Association and the Arnold P. Gold Foundation



PEACE BE UPON YOU | *Jennifer Mendez, PhD., WSU SOM Director of Co-curricular Programs*

Table of Contents

The Art of Medicine	
A HUG Patricia Dhar, MD	
ONCOLOGY Jessica Heselschwerdt	
PAIN WITHOUT CAUSE OR CURE Jonatha Nathan	
ARTICHOKE HEARTS Howard Fischer, MD	
SPLEEN Laura Downing	
UNTITLED Kertia Black, MD	
SCHOOL OF MEDICINE GRADUATION SPEECH Robert R. Frank, MD	
A SHADOW OF HERSELF Nancy Shattuck	
FOR SOMEONE IS GOING TO BE A DOCTOR Anonymous OUR BIOCHEMISTRY Karan Singh	
OUR BIOCHEMISTRY Karan singn	
m 1	20
Travel	23
AN UPHILL BATTLE Caitlin Biedron	
THE BIRTH OF A NEED TO INTERVENE Shad Ali	
JOURNAL John Purakal	2
Beyond the Hospital	3!
ROOTS EXPOSED Kathryn Maysen	
THE VAMPIRES OF NIGHT David Wildt	
FLICKER Brandon Busuito	
FORGOTTEN HOME Robert Guglielmo	
BLACKIE: A LOVE STORY Shirley Kmetz	
CLIFF-HANGER Deepak Gupta, MD	
HERE'S WHAT WE SAW AT THE FISH HATCHERY Howard Fischer, MD	
UNTITLED Sunali Wadehra	
MY MOTHER TOLD ME A STORY ONCE Maya Holtrop	
THE CLOTHESLINE Kathryn Maysen	
MILK RIVER Kathryn Maysen	
MAID MICHIGAN'S David Wildt	5
Our First Patient	51
THE FIRST STEP Ryan Tansek	5
MATTER Jessica Heselschwerdt	
ANATOMY LAB Donald Levine, MD	
I THOUGHT I SAW MY FATHER Diane Levine, MD	
TUMOR BURDEN Miriam Levine	
MY FIRST PATIENT Lara Zador	
BUDDY Esmaeel Reza Dadashzadeh	6
FutureDocs Workshop	61

Table of Contents, cont.

Art

PEACE BE UPON YOU <i>Jennifer Mendez, PhD.</i>	2
PATHOLOGY SLIDES Andrea Barbieri, MD	. 6-7
IRELAND Megan Wing	10
ANGIOGRAPHY, RIGHT UPPER EXTREMITY IN WATERCOLOR <i>Michelle Sakala</i>	12
COMPUTED TOMOGRAPHY, CORONAL RIGHT WRIST IN CHARCOAL AND	
PENCIL Michelle Sakala	13
KERTIA BLACK AND FATHER, HIGH SCHOOL GRADUATION	14
MAGNETIC RESONANCE IMAGING, STIR PULSE SEQUENCE, CORONAL	
RIGHT WRIST IN OIL PASTEL Michelle Sakala	19
FLOODING THE GATES Andrea Barbieri, MD	21
KAMIRANZOVU FALLS, NYUNGWE NATIONAL PARK, RWANDA <i>Caitlin</i>	
Biedron	
MOUNT HOOD NATIONAL PARK Cortney S. Draper	24
THE PACIFIC COAST Cortney S. Draper	24
OLYMPIC NATIONAL PARK Cortney S. Draper	25
ELLERY CREEK BIG HOLE, NORTHERN TERRITORY, CENTRAL	
AUSTRALIA Jill Kremer	
REMARKABLE ROCKS, KANGAROO ISLAND, SOUTH AUSTRALIA <i>Jill Kremer</i>	27
JW John Purakal	
IFAKARA MAIN STREET <i>John Purakal</i>	
UNTITLED John Purakal	
PELICAN Dawn Yargeau	
CHILDHOOD MEMORIES Saba Zabetian	
UNTITLED Ginger Keiffer	
UNTITLED Ginger Keiffer	39
CELLO Saba Zabetian	
HANGING GARDENS Beth Stallman	
KODAIKANAL Beth Stallman	
RUSSIA Beth Stallman	
DAISY DELIGHT Fran Jagger	
FLORAL FIREWORKS Fran Jagger	
STUDY OF FLOWERS Michella Sakala	
NEW YORK CITY Megan Wing	
UNTITLED Ginger Keiffer	
TABLE 50 Sean Mutchnick	57

The Art of Medicine

A HUG | Patricia Dhar, MD, Rheumatology, Detroit Medical Center

With quiet sadness I listen.

It's been a long uphill journey and she is getting tired.

She started off 15 years ago with a lung problem-- her body turning on itself.

She followed all the rules and did all the treatments, but the disease progressed-- slowly.

Each year adding another complication or problem to her list of things to bear, her unfair burden.

As she sat in clinic, we reviewed her test results, all her follow-ups with various consultants, and our "to do" list-- all the mechanics of a "quality visit."

...Multiple ER visits, chronic pain, chronic breathing problems, recurrent infections, no stamina, has to use a scooter to get around, insurance obstacles, financial woes, no transportation, single parent to beloved children...

She sat there in her scooter with her oxygen tank, her slowly growing abdominal folds hanging low, fed by steroids, immobility, and now diabetes. She asked about the rheumatology fellow who took care of her in the beginning, and we reminisced a bit. Then she wanted an update on my kids...

She looked at me and pleaded, "This is not me, Dr Dhar, I am not like this." Yes, I knew that, because I knew her in the beginning before she became this person she didn't recognize and didn't want to claim. But no one else knew.

A regular in the ER and on chronic pain medication, the frustration of being looked at with compassionless disregard-- *oh*, *she just wants pain meds...*

I sat there in awe thinking, could *I* do this? Multiple tests, doctor's visits, 30 different medications, oxygen tanks, finding transportation, taking care of children and a home, all while not being able to breathe or walk?

Rejected by two centers for lung transplant, the "experts" had given up on her, but she was having none of that, threatening to go somewhere else for a transplant evaluation. Defiant, her eyes told me, "Oh no, I am not going to lay down and die." But she was dying, slowly.

As our visit ended, she was still frustrated with her situation and me feeling I was doing nothing for her.

I gave her a warm hug and told her to hang in there. Her face brightened and she said, "I love you Dr Dhar." You see, she just needed a hug, and that is all I could do for her that day... 🗷

ONCOLOGY | Jessica Heselschwerdt, WSU SOM Class of 2012

Imagine your husband is dying. You're both young, maybe in your late 40s, and you never thought you'd be in this place-- at least not for another three decades-- but here you are sleeping on a hard hospital cot with your withered sick husband and you know he's dying and you feel so alone.

Perhaps no one has told you, at least not in so many words, that he's dying. Maybe the doctors have used words like "unfavorable prognosis" and "hospice appropriate." They've instructed you on the meaning of "comfort care" and had you sign a DNR but no one has used that word-- death. No one has said he's going to die and when you ask how long he has left, they tell you that no one can be certain, or they change the subject, or they just clear their throats and step out of the room to answer a page. Nobody says die but you look at your husband with his sunken cheeks and gasping lungs and leaking J-tube and you don't have to Google *gastric adenocarcinoma* to know death is before you.

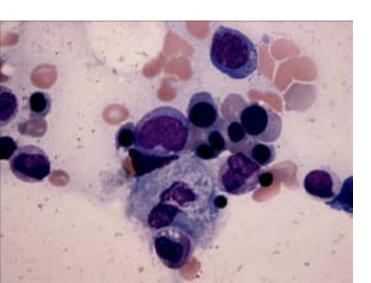
Imagine you have a daughter, and she comes by every day, brings you food she cooked herself-- sweet potatoes, roast beef, strawberry shortcake. These are your husband's favorites, and she brings them even though he can barely drink a glass of water without his stomach twisting and rejecting. She smiles, and talks about things like how many potholes there are on the Boulevard, and who just got voted off American Idol. She comes by every day and you know she's heard the doctor's jargon-filled exposition and seen her father retching and bleeding and leaking but she brings by a smiley face balloon and a card that says GET WELL SOON and when she leaves for the evening, you tear it in two and throw it across the room. When she asks where it is, you tell her the housekeeper must have tossed it away.

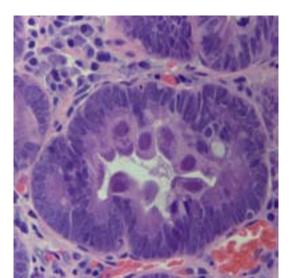
Imagine you have a son, and he doesn't come at all. Maybe he calls on the phone and talks long enough to wish you and your husband well but he's never seen the inside of the heme-onc unit, and he hangs up the phone before you can mention that things aren't so well, to be honest. Maybe you stop by his apartment one afternoon while your husband is napping, to take him a shirt you bought him before this all started and just remembered. When he opens the door to let you in, his apartment looks messier than it ever has before, and he hasn't shaved in maybe a week, and his eyes are red, red, red.

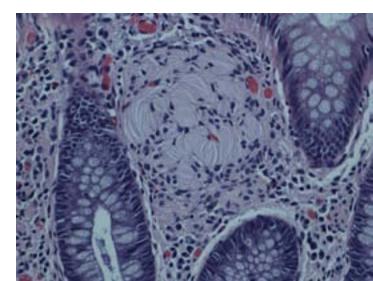
Imagine your husband is dying and sometimes you have these dreams where you die instead-- burnt up in a fire or plummeting off the I-75 overpass or, once, stung by 1000 bees. Maybe you wake up from one of these dreams, under the hospital sheets of your roll-away hospital mattress, and before you open your eyes, you realize that for once you can't hear your husband's scraping loud breaths. For just a second, you think maybe this is it and you find that you're *relieved*. You're disgusted that you feel that way but a part of you is relieved-- and then you open your eyes and realize that his body isn't stiff, but absent altogether. You find him in the hall, at the dark end of the corridor, looking out the window. You stare at his silhouette against the glass and maybe you remember how those arms, now sticks, once carried your children, and fixed cars, and held you close. How those crooked legs not so long ago could run all the way around Belle Isle, something you always thought would ruin your knees so you never tried when he asked you to join him. How his cracked lips used to tell the best stories.

It's snowing outside even though it's April. It's Michigan, so that's not so bizarre but it pisses you off anyway and you curse the weather, and the heme-onc floor, and your husband, and mostly yourself, before you take his hand in yours and lead him back to his bed, where maybe he'll live another day. 🗷

Andrea Barbieri, MD, Pathology Resident at Yale-New Haven Hospitals (WSU SOM Class of 2009)







PAIN WITHOUT CAUSE OR CURE | Jonatha Nathan, PhD Student, Dept. of Psychology

The woman is immediately apologetic. "Never on time, never." Her head down, shaking side to side. Neglected salt and pepper hair is weighted with oil doesn't move with the action. Looking up to meet my smile, she searches my face; shadows have made permanent homes under her eyes. I wonder if she's an alcoholic, or if someone close to her recently died.

She speaks earnestly. "Everything takes twice as long to accomplish." As a hair-dresser, it is imperative I understand her disabilities; they often rule out a plethora of high-maintenance styles. A quick consultation and we have a plan: a trim, with color to brighten her up.

Her words are thrown around like worn rags as she recites her story. With the birth of her first child came constant muscle pain and soreness from seemingly benign activities. She would question every move she made. "Nursing a baby! Rocking her to sleep was impossible…lifting her! Ha!" Laughing, her brow, knit together by over 20 years of pain, doesn't smooth-- even for a smile.

The reasons given by her doctors all related to pregnancy, she explains. Her hormones would level out, it was from sleep deprivation-- it will pass. She waited. Now they call it fibromyalgia. The definition is long, and here she is practiced and precise. I glean facts with my ears as my hands work in her hair-- chronic muscle pain, specific tender points, can lead to depression, no one knows the cause, painkillers are often useless.

At the onset of the disease, she diligently kept to her prescriptions-- but eventually abandoned the narcotic painkillers and antidepressants. They left her in a foggy world, distanced her from the pain, from her life. Nothing improved. She now chooses to endure the soreness, and is driven to find a solution outside of medication.

Her story conjures up the memory of a family member of mine who was stricken with an autoimmune disorder--rheumatoid arthritis-- after her twins were born. It shares some characteristics with fibromyalgia. Turns out all autoimmune diseases have some overlap. It's what makes them so hard to diagnose. Thankfully, tests for each autoimmune disorder provide a way to rule each other out. Fibromyalgia and its cousin-- Chronic Fatigue Syndrome (CFS)-- seem right at home in this category, both often boasting chronic inflammation of connective tissues (like tendons) with no apparent cause. A fact sheet published by The National Women's Health Information Center dodges whether or not these disorders should be classified as autoimmune with a very final sounding "The cause is not known". In the case of my client, the "official" autoimmune diseases were ruled out after pregnancy, one by one.

Before I can let this fascinating new mystery disease slip from my attention, I become acquainted with another client-- a young lady in her early twenties. Something is immediately familiar about her movements. She is purposeful-- uneasy about her next move. Hair unwashed, expression flat, she inquires about an easier way to retain volume in her hair without extensive styling. She has this pain, she continues, that no one can explain. As I search my mind for the word...Fibermalogia? Fibroblastocytoma... her soft voice ends my

searching. "They say I have fibromyalgia... but I don't know if I believe them. All I know is nothing works." Gesturing pitifully to her arm, she tells me, "I wear two morphine patches a day. They won't increase my dose. I wish they had some idea what was wrong with me."

This explains the absence of emotion, I muse, thinking of Bill Burroughs and his epic book "Junky." Wary this girl is a doctor shopper, I don't trust there is actually something wrong with her. As if to answer these doubts she shows me her legs. The swelling is grotesque around her ankles. "Oh my! Jesus Mary! Does it HURT?!" The words tumble out before my PC censor has time to jam the signal from my brain to my mouth. She responds with light laughter, like someone in a dream. "No, not more than usual. It's just annoying, and not only my legs-- all over, random. They used to call it an undifferentiated connective tissue disorder, maybe autoimmune, they just don't know anything for sure."

Connective tissue is the whitish stuff that knits us together, cells and all. What the doctors are suggesting is that her body's immune system attacks her glue-- the chronic inflammation eventually unravels her at an infinitesimal level. She swells. My mind reels-- I realize I am maintaining a ghost. She listens carefully as I teach her to use rollers for volume, informing me after the lesson that she is out of work; disability payments don't cover rollers. I am defeated. We are both powerless to do anything more.

When these women appeared in my chair, I was already one year in towards a degree in biomolecular sciences. Still at a place where everything was "neat" or "fascinating," and not yet as critical as I would need to become. Bringing my enthusiasm and curiosity about this ailment to a more weathered scientist, a professor in my department, I was schooled. "There is a high probability these women are somaticizing." People who suffer from somatoform disorders think they are dying and there is nothing medically wrong. It's all in their head—they are translating emotional pain into physical pain. At least that is how one theory on it goes. I wonder to myself if the current trend towards treating fibromyalgia with antidepressants was born from this concept. By eliminating emotional suffering, they eliminate physical pain? My professor continued, "There is no solid evidence that this is only one disease, even if they aren't faking." No solid evidence. Again. In all honesty, even I doubted them; I had in both cases speculated whether this was not entirely in their heads.

In order to get the down-low from people in healthcare, I would wonder aloud about the disease when a doctor or nurse sat in my chair at the salon. Listening and snipping away, tossing hair over my shoulder as casually as they tossed out their opinions. A nurse revealed that "crybaby disease" was nothing more than deserted housewives in need of some "attention." Other doctors echoed my own concerns that these people sought morphine. This painted a bleak picture and left me indignant. Just because we are unclear of the root of the disease doesn't mean those who suffer from it have created or imagined the pain. I wanted answers-- needed facts.

(cont.)

"Remember how much you do not know."

Sir William Osler



IRELAND | Megan Wing, WSU SOM Research Assistant, Psychiatry and Behavioral Neuroscience

Google-- my trusted companion on forays into the depths of the interwebs-- of-fered boundless oceans of information. Tasty tidbits (men are anywhere from four to nine times less likely to be afflicted with fibromyalgia) and lists of miracle cures clog my search results. Oversaturated, I look for the Mayo Clinic website. It does a beautiful job clarifying what drives myths about the ailment, but the information remains the same; bleak, chronic, symptoms can come and go, difficult to diagnose.

The lack of a concrete pathology leaves both doctors and patients flailing, coping, and developing *ad hoc* treatments aimed at alleviating the pain of the disease, as there is no cure. There are many theories: Depression has the potential to cause pain, but chronic pain

also causes depression. Everything links to everything, and the ideas spiral in on one another, most of it speculation. I am dizzy following the trail. Where is the empirical data? With answers far from coming, and facts being more than I can process. I look where doctors look when creating evidence based treatment plans: academic journals.

"Fibromyalgia" punched into the search box on Pub Med yields results from pharmacological, neuropsychiatric and chiropractic journals. Psychology research pertaining to somatic disorders is woven in with medical research. Seems even when considering the evidence, the fakers and the fallen are intertwined. Every discipline targets a different aspect of the disease or one of its probable causes. My investigation leaves me pained.

Like so many faced with treating these patients, I brush the thought of understanding the cause aside, and dive into treatment options. The FDA is quickly approving drugs that alter neurotransmitter levels between synapses in the brain- the way antidepressants do- running on the assumption that this could be the source of the disease. The fact is, there is no proof these drugs target anything to do with fibromyalgia, as these same neurotransmitters are involved in pain transmission. Of course, like any other antidepressant, they may simply help to relieve the weight of a heavy situation. This is the same game psychiatry and neuropharmacology already play with a long list of psychiatric disorders-- if the drug works, apply it!

My childhood friend (one of the rare men diagnosed with the dirty F word) applies this 'any cure' philosophy as well. Only, he prefers an unrefined pharmacopoeia: marijuana is approved as an analgesic in his home state. The source of his fibromyalgia is a mystery to him, yet I watched him gobble down more than his share of psychotropic substances in our youth. The pain came on suddenly he insists, yet it was right about the time he cleaned up his act. Could my friend be a drug addict? Is his pain a long-punishing withdrawal symptom? Or did the recreational drugs he reveled in actually work to stop a pain that was there all along? Is his past drug abuse one more potential cause? Line it up buddy-- back of the line!

In trying to integrate all of this into a coherent theory of the disease, for my own understanding, I am only faced with more questions. Could it start in the brain, like MS? Is this abnormal transmission of pain signals? Maybe pain signals aren't being blocked? This toppling mass of potential causes is leaning toward some sort of neural short-circuit, but the cause? Drugs, pregnancy hormones, and stress all seem to be implicated in triggering this chronic pain and fatigue, but what can undo it?

I barely recognize the woman in her fifties as she walks toward me. She seems taller, brighter, makes better eye contact. Though still earnest and apologetic, she's now too busy to be on time. Happy to see the familiar face, I inquire as to the miraculous recovery. She's had a neural stimulator implanted! As she describes it: wires at the base of her neck send electrical stimulation to the top of her spinal column, effectively jamming the pain circuit. She can operate it via remote, turning it on or off, or adjusting the voltage via a control box in her chest. True to form, her personalized cure proves nearly as troublesome as the disease-- she is pain free, but feels a tad perma-frazzled. It's as if her nerves are...well, fried. She is on edge now, almost too tuned-in. The stimulator also seems to amplify her character; she is clearly a pessimistic person. With the pain diminished, her focus has narrowed on the stimulator- the new perpetrator-- of which she has nothing nice to say. Leaving me, once again, to wonder the cause of her pain. $\mathfrak S$



ANGIOGRAPHY, RIGHT UPPER EXTREMITY IN WATERCOLOR | *Michelle Sakala, WSU SOM Class of 2011*

 $\label{lem:artichoke} \mbox{ARTICHOKE HEARTS} \mid \mbox{\it Howard Fischer, MD, Children's Hospital of Michigan}$

Every time I go past the pantry I see the artichoke hearts. In cans and jars, all labeled "Product of Spain."

She loved to cook with artichoke hearts. I never thought much of them, but kept quiet.

These cans and jars have been in the pantry untouched for nearly a year:
She died in November and was in and out of the hospital the month before that.

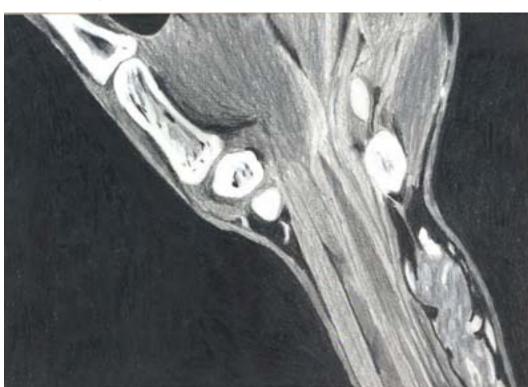
Every time I go past the pantry I see the artichoke hearts. In cans and jars, all labeled "Product of Spain."

What am I supposed to do with them? 3

SPLEEN | Laura Downing, WSU SOM Class of 2014

In your plum garden
The breathless red army is dismantled;
Their hearts pass to their children
and the force draws breath anew.
Chained invaders are set adrift
Greet the aged in the current
And the black river swells.
In neutral territory the enemy is captured
Their fates gifted to the silver knights.
The white soldiers congregate in your depths
And await the siege.
While the ivory sentinels are celebrating victory
The sanguine youth find solace and expire,
In your plum garden.

COMPUTED TOMOGRAPHY, CORONAL RIGHT WRIST IN CHARCOAL AND PENCIL | *Michelle Sakala, WSU SOM Class of 2011*



My first memory of medicine was walking the underground halls of the old Detroit Receiving Hospital in the very early 1950's. My father, Kirtis Thomas, was an orderly there, and would sometimes take me along, often allowing me to walk beside him down the long halls of what I remember as a basement corridor as he did his duties (obviously, security was not then what it is now). I'll never forget the medicinal smell of those hallways and the feeling that something really, really important was happening in the patient wards just above our heads. He had wanted to become a doctor himself, but he had a wife and children to support-- and the racial tenor of the times was not hospitable to his goal-- so he chose to become a science teacher instead, paying his way through school with his work at the hospital His dream for me was that I would someday realize the ambition that economic pressures and social conditions had propelled out of his reach. There was always a hospital-- or science-- in my life, always through my father in one way or another. And later, he introduced me to the musty stacks of the old medical school library-- the dim, cramped quarters where hundreds of medical students used to toil before there was such a thing as the airy, open Shiffman where we all study today. Because I was a WSU undergrad-- and at the insistence of my father-- I was somehow able to gain access to that ancient pre-Shiffman library and spent much more time studying there than at the undergrad Purdy. My father was trying, I think, to get medicine and medical school into my blood-- and he succeeded. So, it was, with gratitude to him, that I finally realized his dream for me-- a dream that had along the way become my dream, too. I had become a doctor. But little did he know that I would end up back here at Wayne State, practicing medicine and becoming an Assistant Dean in the very medical school that he, himself, had hoped to attend. My tenure here in Student Affairs has been a rich experience for me and I am grateful for it. And my retirement from the medical school is the end of a journey whose first miles were traveled with my hand in the hand of my Dad-- so many decades ago. 🗷

KERTIA BLACK AND FATHER, HIGH SCHOOL GRADUATION

SCHOOL OF MEDICINE GRADUATION SPEECH | Robert R. Frank, MD, Vice Dean of Faculty Affairs

Thank you so much for the honor of speaking at your graduation. I've been here, counting medical school, for 43 years, and although this school and this University have been wonderful to me and my family, I've never been given this honor before. Now, I know I wasn't your first choice. That's ok; I don't feel bad about it. It would have been nice to have Michelle Obama here. I heartily agree. But "House" beat me out too? House, the anti-doctor, the patient-hater. Trust me; you're better off with me as your graduation speaker than Dr. House. As a matter of fact, I've often used House as a model for what you don't want to be: arrogant, impatient, bullyish, overly confident, impetuous, drug-addled, and a bad sport. On the contrary, I want you to be the wonderful physicians we know you can be, and I'm hoping that I can encourage you to continue along the good path you are already on.

What happens next to all of you ties you in close to all physicians, me, your teachers, all the MDs in the audience, all of the doctors who've come before you back to Hippocrates, back to the ancient Arabic physicians, back to the Chinese herbalists. You now get to apply what you learned these past several years to patient care. No longer will you be the observer, the fifth wheel, the ninth assistant—now you will be fully engaged at all times. Many of you have already experienced this engagement, this responsibility for another human being, in bits and pieces, but now it will become intense and consuming. People will look to you for advice, direction, and answers, and you will all feel somewhat inadequate. That's good! You have people's futures in your hands, their well being, their destinies, and it should make you, me, all of us more than a little nervous. All of the physicians through the ages have felt this fear, anxiety, and terror of being entrusted with another's life.

I'm going to relate a story about how this started for me. Like you, I finished four years of medical school at WSU, then started my residency at the then City Hospital for Detroit, DGH. I was adjusting to a life of night call q3 and very sick patients, but overall feeling supported by faculty and fellow residents as well as nursing staff and other hospital staff. Then it happened that I was assigned care for a very sick woman on a service which did not have the best senior residents, and an attending who seemed more interested in the lab than in close supervision of patient care. The patient had extensive pulmonary TB and had to be intubated and placed on a respirator. She had five daughters, all young and counting on me to save their mom. I was overwhelmed, angry, frustrated, exhausted, and at a loss, as her condition deteriorated and after several weeks, she died. Her daughters forgave me, praised me, thanked me for my efforts, and became life-long patients of mine. This was it for me. The moment when I crossed the threshold, grew up as a physician, knew what it felt like to care deeply for a patient and lose, despite my best effort. Recognize that you don't always have all that you need to give to your patients and that the system has real limits, especially but not exclusively for poor people. This acceptance of yourself as a doctor and all that that means will come to all of you, sometimes dramatically, as it did to me, sometimes more subtly, but once it happens, there's no going back. You will have changed forever.

There are lots of other things that will happen to you in the next 3-8 years. The skills that you've begun to develop in medical school will be honed to perfection. By the end of residency, you will be fully competent to function independently as a physician in your chosen field, and I have complete confidence that you will all be very skilled in what you do.

(cont.)

"Don't let yourself be. Find something new to try, something to change."

Atul Gawande

These skills, of course, come at a high price. To get good at something, you have to practice it over and over again. Complex tasks take thousands of hours to master, and many of these tasks are quite complex. Newer methods to teach residents complex skills have been developed at medical schools like ours and are available to residency programs all over the country-- small and large, urban and rural. Before you put in your first central line, do your first hernia, care for your first sick baby, or do your first cholecystectomy, you can practice over and over with virtual models, standardized patients and high fidelity mannequins. This is a part of a revolution in medical education using technology, and cyberspace. Much of it-- streaming video, use of ultrasound as an educational tool, surgical simulators-- were developed here at WSUSOM and reside in our wonderful education facility the Mazurek. I should add that 100% of the building costs, all 35 million dollars, were raised from alumni gifts and friends of alumni.

One cautionary note as we move on. From Malcom Gladwell, the "pop" sociologist who wrote "The Tipping Point" and several other good books who said in a 2009 essay for the New Yorker Magazine:

As novices, we don't trust our judgment. Then we have some success, and begin to feel a little surer of ourselves. Finally, we get to the top of our game and succumb to the trap of thinking that there's nothing we can't master. As we get older and more experienced, we overestimate the accuracy of our judgments, especially when the task before us is difficult and when we're involved with something of great personal importance.

We've talked about becoming a physician and transforming from a medical student to a doctor; now let's spend a minute on ethics and values. Not ethics with a capital E, but the kind of moral and ethical dilemmas that you will face every day. How do you consistently do the right thing and not lose your way? Well, we have guidelines-- practical ones-- and these are helpful. One that I find useful when it comes to taking gifts from the pharmaceuticals or medical device makers is "how comfortable would I be if my patients knew I accepted this gift?" Confidentiality and keeping patients secrets are outlined well by federal laws such as HIPAA which you all know about. What about guidance on issues like this: you're making rounds, and the attending physician is abusing a fellow resident? Or, what if you are asked to consult on a patient, and you think the other physicians are doing something that may be harmful? Or how about this one: the team is sitting around chatting and someone makes a racist or a sexist comment?

A lot of articles have been written about how young altruistic medical students get transformed during residency and become cynical and lose their empathy for patients. Overwork and big bureaucratic systems certainly don't help, but part of this loss of compassion occurs because we don't take on the daily issues that make us uncomfortable. We let it go, even though we know it isn't right. In my career as a physician, I feel that I've taken on much that I perceived wasn't right. When that little voice inside that your parents told you to listen

to screamed *SAY SOMETHING*, I often did. But I also let stuff go, for lack of courage or energy or time, and I diminished myself as a physician-- as a person-- when I did. Compassion and empathy and listening and understanding is what our patients need, as much as diagnosis and treatment. Don't let anyone steal it from you. Preserve it at all costs.

My final theme for this graduation is societal. What is our obligation as physicians to go beyond the healer of the individual patients for whom we care, and to the citizenry as a whole? This is one of those areas that many people avoid in a graduation speech because it tends to be polarizing and it ends with no feel good lesson. But that's OK. We're talking about the health care system you'll be practicing in soon, and all of us here today use, and will continue to use, when we get sick, when we need advice, when we need comfort.

We know today, right now, what a good health care system looks like. Many countries that look a lot like us in other ways (that is, market economies) have good systems of care. Many of the elements of a good health care system already exist here. A great research establishment, a fine professional training system (the envy of the world), advanced technology, and improved IT infrastructure. We need to focus on fixing four big problems: costs, bureaucracy, access and disparities, and control of medical errors. While we don't have time to delve into any of these issues today, I believe these problems/ challenges are overcome-able. We are smart enough, we are dedicated enough, and we can work hard enough to win. The victory will be sweet, and all of you can concentrate on caring for patients, research, teaching, not worrying about patients who can't pay their bills, or how to get someone admitted to the hospital, or frivolous law suits.

Now, in order to get there, we have to look at what's good about what we have. Good, not perfect. The enemy of good is better in this arena. The VA, Medicare, and the Federal Employee Health Benefits Program are all examples of good systems which can be improved upon. President Obama's plan called "The Affordable Care Act" has some great features which are already in place, like kids all being insured, parents being allowed to keep kids on their insurance longer, millions more Americans able to get basic coverage very soon, and prior illnesses/condition not counting against you. So, where do we, the docs, come in? We need to become activists. We have a huge stake in a new health care system's success. Organized medicine is involved, and many of our most important and largest specialty societies like the ACP have proposed far reaching and progressive changes.

So, as you begin the next phase of your training, I'll leave you all with this on your graduation day: develop your knowledge, skills, altruism, and your sense of duty. Within you is the gesture of the prehistoric surgeon who trephined a neighbor's skull on the floor of a cave. Within you, the poultice of cool mud applied to a burn by an old African woman. The work of all doctors before you is in your blood. Yours will enter the veins of whosoever comes after you.

Good luck and good health. We know you can do it. @

A SHADOW OF HERSELF | Nancy Shattuck, Adjunct Professor, Wayne State University Department of English

Betty Dillard heard the phone ring. Though she could no longer see to read, she swiveled her favorite reading chair to face the picture window view of the lake beyond. They didn't get many calls, and she strained to hear her husband's voice when he answered. "He's whispering again," she fretted, fumbling with her hearing aid. Betty had come to suspect that he often talked to others about her. What is more, they had always been open with one another. If she couldn't trust Jack Dillard, she didn't know who she could trust.

"Who is it?" she called out to him.

"It's Carla," he interrupted his phone call.

"Oh," she answered. Normally she would have insisted on saying hello to her stepdaughter. She could make out snatches of his conversation: "it's not good..." and "she's not ready for that yet..." and "...happen to me." She felt hollow, her limbs weak.

He had finished speaking before she could say hello to Carla, returning to his chair across from her.

"Well," she stated matter-of-factly, "that was a surprise. Didn't she just call last week?"

"Yes."

"Well? What?" she prompted, recognizing his cue for clamming up.

"She's here in Detroit. She's changed her vacation plans to come and visit you." He emphasized *you*.

"Jack, I can't! I'm not well enough!" Betty felt something burn in the pit of her stomach. "You didn't tell her to come?"

"She insisted. She said she was going to be visiting her friend Jean, and she would stop by on the way back." He rose and stood by her chair. "She wont stay more than an hour. I promise." He stood and took her arm. "It's time we get you some lunch, isn't it?"

It was a cheerless lunch: soup, which he fed her from a spoon. Thank heaven, she thought, they wouldn't be going out to dinner!

Betty stood next to Jack at the door. She embraced her tall stepdaughter formally, but had to stand on tiptoes to kiss her cheek. "How was your drive?" asked Betty. Carla followed her lead to the living room.

"Great! I had beautiful weather. I left early so I could stop at the winery in Monroe for lunch."

Betty nearly stopped dead in her tracks. But she dared not look back, being prone to falls. She leaned forward and extended her arms when she walked, reasoning she'd brace herself if she fell. They passed her white cane where it leaned against the wall. Had she heard Jack wrong this morning?

"Let's sit down," Betty said, motioning Carla to a chair across from her.

"The house hasn't changed in a year!" Carla said with genuine surprise. Betty wondered what she had thought she would find.

"Why ever did you think it would?" she queried. Carla felt uneasy at her sharp answer, and before she could make matters worse, Jack interrupted. "Well, we did take out the plum tree by the driveway. It was always messy." He stepped into the kitchen and broke out the ice tray. Ice clinked into the glasses.

"You mean, you got tired of cleaning up the carpets," Betty said. She smoothed her hair. She had loved the little flowering plum.

Jack entered, distributing drinks from a tray. "Still drink Scotch, I see" he quipped to Carla, setting the drink down.

"We don't see anyone but the doctors now," Betty said, changing the subject. "We have the eyes on Tuesday, ears on Wednesday, bones on Mondays. Oh, and physical therapy twice a week."

"Did you have good news from the eye doctor?" Carla responded to her stepmother's mood.

"No" Betty said in an injured tone. "They don't want to see me anymore. There's nothing they can do."

Jack said, "They botched the operation, because her sight's worse than it was before the operation."

"How horrible! Can you still see light?" Carla asked.

nothing I can do."

"They have wonderful books on tape," Carla said helpfully.

"I don't want books on tape. My cousin sent me one and I never opened it. See, it's over there. I want to see again." She stopped then, realizing she'd gone too far. She shook her head, bemoaning "I just can't believe it!"

In a short while, Betty knew she had exhausted her reserves. She stared at the floor, praying that Carla would know it was time to go.

Look what I found, she heard Jack say. I must have bought these months ago: three filets. He held up the package of bright red meat. You'll stay for dinner, won't you?, she heard him plead. I haven't had steak in years, came the acceptance from Carla.

Betty hunched her shoulders, pressing the handkerchief to her eyes, sniffling as the hot tears overflowed on her cheeks.

"What is it, dear?" he inquired.

"Nothing," she cried into her handkerchief. "Never mind."

"Did I say something?" Carla asked, concerned.

"No," Jack said. "She is always that way." 🗷



"Oh yes!" she exclaimed. "I MAGNETIC RESONANCE IMAGING, STIR PULSE SEcan see light, and I can see shapes. I QUENCE, CORONAL RIGHT WRIST IN OIL PASTEL | just can't read. I can't write. There's Michelle Sakala, WSU SOM Class of 2011

FOR SOMEONE IS GOING TO BE A DOCTOR | Anonymous, WSU SOM

"I know she's a difficult diagnosis," my husband was saying to Dr. George on the telephone. He went on to describe some of my behaviors.

Medical student that I am, still in her pre-clinical years, I wanted answers in the best way I knew how to find them: First Aid for the Psychiatry Clerkship. "That's not how this works," said my husband, the resident internist. "You're not going to be able to diagnose yourself using that book." I didn't care. I needed answers.

"Then what do you think I have?" I asked. "Bipolar disorder? Schizophrenia? Schizoaffective disorder?" My husband paused and said "I really don't know." We drove to the clinic. My questions wouldn't stop. Somehow, I felt that if I kept asking him over and over again, he would be able to tell me what was going to happen. He was scared too. Usually his fear doesn't show, but I could sense it this time.

Nervously, I waited for Dr. George to call me in from the waiting room. He came in and his normally jovial face elicited deep concern. "So what do you think is going on?" he asked, as soon as we were seated in his office.

Just an hour ago, I read the email exchanges he had with my husband about how to interact with someone who is delusional.

My voice felt heavy. I could barely get the words out. "I must have some sort of psychotic disorder. We have talked about anti-psychotics in the past. Maybe I need one. Maybe this will keep happening if I don't take one. I'll have moments of clarity and then I'll go back to believing something is going on that isn't. This isn't going to go away." He breathed a sigh of relief. At least he wouldn't have to go through the ordeal of getting me to undergo treatment when I didn't believe there was a problem.

I went on to describe what I thought the diagnosis may be. "Maybe I have schizophrenia, paranoid subtype" I speculated with him. "The delusions may be part of my positive symptomology, and I do have a poor attention span, so maybe those are my negative symptoms."

He was fighting back a smile. Dr. George never loses his sense of humor, does he? So I tried again, "Or schizoaffective disorder? My moods are all over the place. Sometimes I'm happy, and sometimes I'm not!"

"Your primary symptom set is not really of a mood disorder. Do you have periods of time when you go days without sleeping?"

"Well, yes, in college, although I did so because I was cramming for exams..."

"That's good for someone who is going to be a doctor."

For someone who is going to be a doctor... those words echoed in my mind. In the several months that I have been seeing him, that's the first time he said that with so

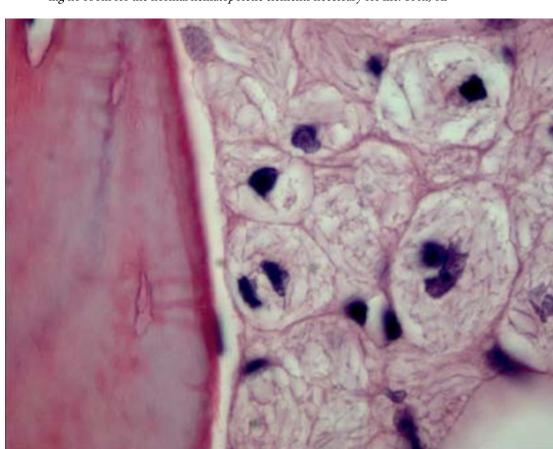
much confidence. "Ellen, don't look at this as having several different disorders. You have one system in your brain that's not functioning properly. "

"How is this obsessive-compulsive disorder?"

"In very severe cases, people with obsessive-compulsive disorder may develop delusions. My roommate in college presented similarly to you. This is very treatable. I've seen people through medical school with much worse than this."

FLOODING THE GATES | Andrea Barbieri, MD, Pathology Resident at Yale-New Haven Hospitals (WSU SOM Class of 2009)

One of my first autopsies as a pathology resident was on a 9-year-old girl. These large cells, seen incidentally on a bone marrow biopsy taken prior to her death, filled her marrow leaving no room for the normal hematopoietic elements necessary for life. 100x, oil



OUR BIOCHEMISTRY | Karan Singh, WSU SOM Class of 2012

Meeting you was fate, You are like my substrate

By now you already know, My *Keq* for you is really low

For quite a long time, I've been really fond Knowing you better would really catalyze formation of this bond

There's a lot about you that got me to chase Your smiles add energy to my day like protein kinase

To add nucleotides, you need a free 3 prime I want us to be like a cofactor is to an enzyme

I've said this before, girl I think you're fantastic You're B12, and right now I'm megaloblastic

My affection for you is like branched chain amino acids in Maple Syrup Disease It just don't break down and I don't really want the accumulation to cease

I'm waitin' on that day for a shot to make my case 'Cause you are like epinephrine to my hormone-sensitive lipase

These last few lines I'm sleepy so I'ma let my thoughts flow 'n I'm just gonna skim it My liking for you is like a mutated glycogen synthase with no allosteric inhibition and no rate limit 🖙

"Some patients, though conscious that their condition is perilous, recover their health simply through their contentment with the goodness of their physician."

Hippocrates

Travel

AN UPHILL BATTLE | Caitlin Biedron, WSU SOM Class of 2014

As we walked up the steep hill to Bushenge District Hospital, we were immediately greeted by the Congolese director, who invited us to begin our assessment of HIV/AIDS care and treatment services. Along the right side of the hill, UNICEF tents lined the driveway, which were serving as the adult wards. Fortunately, the pediatric wards had survived the earthquake that occurred in the western province of Rwanda a year earlier; however, the adult wards were no longer structurally sound, and had yet to be reinforced. Whether the cause was the government's failure to reconstruct the buildings or an unfulfilled promise by UNICEF was anyone's guess. But the result was stark: patients lay in crowded tents, with tarps lining the floor, and blankets lying outside to dry.

An uphill battle could not have been a more fitting description.

The situation was disconcerting, to say the least, and illustrated many of the public health issues that are so often neglected: infrastructure, supplies, diminished funding streams, and overlapping responsibilities between agencies, with a recent natural disaster only worsening the already dire situation.

During the visit I tried to gather as much from each conversation, typically conducted in French, as possible, occasionally recognizing a greeting in Kinyarwanda or Swa-

hili as well. My French was somewhat limited but I was just proficient enough to catch the main content of most conversations. And afterward, I could fortunately recap with my Rwandan counterpart to clarify the points I did not fully understand. I had much to learn.

This visit to Bushenge was one of my first clinical site visits during my two-year assignment in Rwanda with the Centers for Disease Control and Prevention (CDC), an invaluable experience and one I will never forget. During such visits, I was repeatedly struck by the urgency of the situation, which one could only (cont.)

KAMIRANZOVU FALLS, NYUNGWE NATIONAL PARK, RWANDA | *Caitlin Biedron, WSU SOM Class of 2014*



appreciate when visiting the clinics themselves – they needed more assistance *now*. Not soon, not later. As a CDC representative, I made promises I could not always personally keep, but had no choice but to make.

Needs were great; resources were few. Dedication was high among many health center and hospital directors, but how many obstacles could one *titulaire* face?

Through such visits and my daily work with CDC and Ministry of Health colleagues, I quickly gained a better understanding of the many obstacles facing Bushenge and other health facilities. There were many factors converging which made the provision of HIV/AIDS care and treatment and other services extremely difficult. In addition to limited resources, geographic isolation, and logistically difficult supply chain management, the bureaucratic complexity was also problematic, often delaying those funds that were actually available from being transferred to the facility in a timely manner.

Even in the comparatively small country of Rwanda, such bureaucratic hurdles were not inconsiderable. From both the Government of Rwanda (GOR) and the U.S. Government (USG) sides of the equation, there were constant obstacles which could never be anticipated. The flow of funds from the USG to the GOR, or from the USG to non-governmental organizations, was anything but simple, which prolonged the delay in transferring funds to facilities. I had never appreciated the complexity of funding streams, nor the potentially dire consequences that unexpected disruptions in funding can cause, before experiencing it firsthand.

While I learned a great deal about the Rwandan Ministry of Health, the national healthcare system, and its HIV/AIDS care and treatment program, the most profound lesson I learned was the remarkable human capacity for resilience, as demonstrated by my Rwandan counterparts, who have continued on and make the most of each and every day, in spite of an extremely painful history.

[From left] MOUNT HOOD NATIONAL PARK; THE PACIFIC COAST; OLYMPIC NATIONAL PARK | Cortney S. Draper, WSU SOM Class of 2011

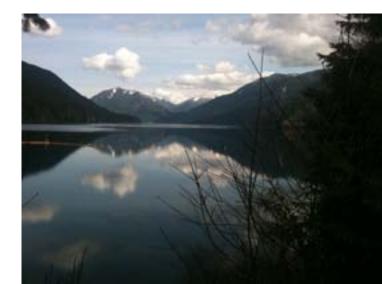
I quickly grasped how little I truly understood about the country I was living in, realizing I viewed the city of Kigali, and the country as a whole, as if I were color blind, oblivious to both bright colors and nuanced shades and hues. Ethnic divisions, past history, and many verbal and cultural subtleties were all invisible to me as an outsider. To many of my Rwandan colleagues, each building and every street in the capital held major historical and emotional significance, and was a constant reminder of a past that would never be forgotten and that was still very much a part of the present. I could never begin to understand what they and their families had been through. Nor was it ever discussed, and understandably so, except in passing, when someone would make a brief reference to the war, but that was seldom done except occasionally during the week of mourning from April 7th-14th. Words of comfort seemed so inadequate during that time, or at any time, as such an experience will never be understood by those who have not lived it.

As I approached the end of my time in Rwanda, conflicting feelings of nostalgia and excitement washed over me. It was very difficult to say goodbye to close friends and colleagues, but I was also excited to embark upon my next phase. I was sad to be temporarily leaving the field of global health, my passion, but excited and intrigued by the opportunity to better understand the clinical aspects of healthcare. The population-level approach is vital, to be sure; however, solely applying a panoramic view can sometimes cause one's view of each individual patient to become blurred. As an aspiring clinician, I hope to retain the ability to see the forest, but at the same time keep each tree in sharp focus.

Most of all, this experience taught me the importance of being able to do more listening than speaking, more learning than teaching, and more observing than documenting. As aspiring physicians, we must always have great respect for our patients, colleagues, and mentors, who will provide us with the opportunity to work, live, and continuously learn in an emotional and stressful, yet rewarding, environment, whether it be in this country or another. This lesson was most certainly impressed upon me during my time in Rwanda, the Land of a Thousand Hills, by the many uphill battles its health system and its people face every day with immeasurable courage, resilience, and determination. \mathfrak{C} 3









ELLERY CREEK BIG HOLE, NORTHERN TERRITORY, CENTRAL AUSTRALIA | Jill Kremer, WSU SOM Class of 2011

THE BIRTH OF A NEED TO INTERVENE | Shad Ali, WSU SOM Class of 2014

The naked child lay on the bed in a manner exemplifying life imitating art in the worst possible way. He was sprawled out in a grotesque reenactment of Michelangelo's "Creation of Adam." The little boy's delicate body appeared deliberately superimposed on a canvas of blank white bed sheet with distinctive brush strokes of vomit and blood around the sides. The accents of bodily fluids seemed to visually whisper to any onlooker that great suffering was sustained to create this sight. This tragic scene of an 8-year old lifeless body claimed by acute lymphoblastic leukemia is an image, one of many seared into my memory of shadowing doctors in the public hospitals of New Delhi that elicited two salient revelations. First, it became clear to me that medicine is a fundamentally human endeavor that holds the unique promise of being both an art and a science. This duality is reflected in all aspects of what I understand a physician's practice to be. Every decision and interaction is a balance between logic and intuition, drawing on compassion and knowledge. Hence, the art of saving a life is fiercely engendered by the science that makes it all possible. The second revelation was that despite my desperate desire to help, I was completely helpless. I had done nothing because I did not know how to do anything. It was a sensation I never wanted to feel again. It occurred to me that wanting to intervene was not enough, but acquiring the means to participate and possibly restore the well-being of another was everything.

Before starting medical school, I had the opportunity of shadowing different physicians through several public hospitals in New Delhi, India. It was an odyssey marked by the insanity of endless halls and stairways inundated with people, ailing, injured, and waiting; by the absurdity of walking into a single hospital room with two beds and finding four patients;

by an atmosphere of utter despair since these hospitals fell short of physicians, staff, and resources, and there was no alternative, nowhere else to go. It was a journey I have not forgotten as every detail remains excruciatingly clear. I can see the innards of the All India Institute of Medical Sciences (AIIMS), where an attending physician led me through corridors lined with patients and families on the floors, always brushed to the edges like scattered leaves. I can see the ER outside of Safdarjung Hospital, where a beat up rickshaw, literally busting at the seams with people, pulled up and frantically tried to unload a half-naked man whose leg appeared shredded and mangled. I can see the exhausted face of the doctor that told me how in medical school she was taught about doctor-patient interactions, but nothing could have prepared her for the burden of doing crowd management as opposed to treating patients. I can hear the jaded wisdom with which another doctor tells me that what I have seen is an everyday reality to public hospitals in India—the only places where the impoverished majority of India can still seek proper health care at no or minimum cost—we would consider a state of crisis in any western hospital.

The dilapidated conditions, the overwhelming crowds, the grossly inadequate number of doctors, nurses, and staff, all collectively created an image that was beyond stark for me. The impression each hospital left me with is so severe that it is burned in my memory. I will not forget what I saw. And I will never forget what I felt: absolute compulsion to become a doctor and the need to intervene through the craft of medicine. $\@align*$

REMARKABLE ROCKS, KANGAROO ISLAND, SOUTH AUSTRALIA | Jill Kremer, WSU SOM Class of 2011



22 June 2010

Jambo! Leaving today. A bit apprehensive considering how busy I have been and how unprepared I feel.

13 July 2010: Day 1

I'd be lying if I told you I imagined my first day to be anything like this. Everything leading up to today made me think that this externship was an opportunity to see some very interesting cases, while conducting my hypertension research in a modern, Swiss training facility in rural Tanzania. All of that may be true, but what was left out of that prediction was the extremity of nearly every ailment imaginable, the lack of resources at the Ifakara hospital (not Swiss-owned), or the instant doubt cast on my ability to practice medicine, one day into my surgery rotation.

I chose surgery first, hoping to get some hands on experience. I was disappointed to find out that operating days are Wednesday and Friday, so we had a full day of rounding ahead of us. We walked through the wards and saw patients of all ailments. The doctor picked one boy up, and explained that he had been there for 30 days with this burn, one he had received when he fell into a large pan of boiling water used to mix with cold water for baths. When asked if the child MUST stay for all 30 days in the hospital, the doctor replied, "of course, for this is a sterile place, not like their home." As if there was a director somewhere who shouted "cue the irony!," a large chicken walked past the physicians' legs and then fluttered out of the window to an area with more chickens.

We went on rounds for the next 45 minutes and saw a number of interesting cases, most of which were young children who would not receive operations because their bones were still malleable and their injuries not severe. The real reason might have been that the entire hospital had run out of general anesthesia, and was quickly running out of local anesthesia as well. Priority for the anesthesia was given to OB/GYN for C-sections, but even they were becoming very selective on recipients.

In the corner of the room, watching peripherally through half shut eyes, was an 18 year-old boy. He had had a seizure while home alone, and knocked over the fire that was boiling water, as well as a candle in their small straw and mud hut. He does not remember anything, but was found on his knees nearly an hour later in the fire. His entire back, arms, head and parts of his legs had been burnt down to the layer of bone and muscle you see in anatomy drawings. Now, all that was visible was his eyes and mouth, and I happened to glance over to catch him in the moment he realized he was next up in the batting order. As they wheeled him over, the boy who had not said a word all day because it hurt to move his 3rd-degree burnt lips began mumbling what sounded like prayer. I was to hold one of his legs down, as the surgeon removed his bandages. I do not know how to describe the pain one must feel when removing bandages from 3rd degree burns that have now become septic, but it was not nearly as bad as what was to come. As he was held down, each of us took turns removing his burnt skin from his body. This boy screamed out in howls and oooooweeees I had never heard before, but never an outright scream. We cut his yellow layer of subcutaneous skin off of his burnt black veins, all the while hearing cries to God and pleas to stop as we crossed over areas where his nerves were not entirely fried. There was blood everywhere,



JW | John Purakal, WSU SOM Class of 2013

which quickly reminded me we did not know his HIV status. Dr. Simon came to the foot on my side and quickly cut open a fist-sized heat blister, which allowed clear fluid to splash all over the floor. He then handed me what looked like a tiny ice cream scooper and told me to get started. "Where?" I asked. "On his face and head," Dr. Joseph replied, pointing to his own head. I nearly passed out, for I quickly realized that the utensil exchange and discussion had all been caught by the now watery eyes of our 18 year-old epileptic. As I walked around his bed, his eyes followed me, all the while pleading with me in Swahili not to do what I was going to do. As I put the tool to his forehead, I closed my eyes and peeled back, only to open them to a stream of fresh blood where I had removed burnt skin, and a stream of tears from his eyes. Watching him look up at me while I caused him such pain pulled at every heart string in my body. This went on for nearly half an hour more, until his head was free of burnt or infected skin, and I was devoid of any emotion or attachment I had to the field of surgery prior to this. The procedure ended abruptly, as one of the nurses (a nun) called it over on account of the amount of human suffering outweighing the good we were doing in one day. The surgeon argued that this all will be pointless if we do not remove all the infected skin, but to no avail. We all removed our gloves, washed our hands and silently walked back to our campus. Those surgeons took a quick break, and continued treating patients without anesthesia for the rest of the day. And have done so for the past month. And they have been out of epidurals for 3 months. And there have been weeks without sutures, or gauze. There are no IV antibiotics, either.

Somewhere I know I helped that kid. Some day he might even think that too. But I am already trying to forget it and will make a point to visit the chapel tomorrow.

(cont.)

14 July 2010: Day 2

"The next patient is JW. 18. Burn victim. Arrived yesterday with septic burn wounds. Patient's wounds were treated in theater 3 and bandages will need re-dressing today. The next patient is..." That was it. As Dr. Amani read through his Surgery ward notes during the case presentation round-table this morning, I could not believe that the horrific two hours from the day before were merely 20 seconds of the hour and a half meeting. The reality is, it WAS a minor procedure, and things that may seem major to the naive medical students from Detroit are routine in rural Tanzania. Having worked for nearly 2 years at Detroit Receiving Hospital's ED, I had mistakenly thought I had been through the ringer. Gun shot wounds, drug abusers, and the extremes of heart failure or sepsis. Ass-out-of-u-and-me.

16 July 2010: Day 4

Atul Gawande's book, "Better," attempts to show how diligence, integrity and ingenuity can be used to do better-- as physicians and as humans. Gawande presents chapters on cleanliness, specialized surgeons' salaries and the constant loom of malpractice insurance. I wonder what the surgeons of St. Francis Designated District Hospital would think of Gawande's bestseller.

On cleanliness:

The idea of a compromised surgical field is surely different here as it is in any developed nation. Yesterday, those on the surgery rotation were getting ready to take our break for lunch when Erin, a nursing student from Canada, asked us if we wanted to see an abscess irrigation. Not the ideal pre-lunch activity, but a slow morning had left us eager for anything. After 30 minutes of meticulously irrigating and packing the wound up to Canadian code, the two nursing students had managed to complete the task at hand with only minimal wincing (by both the patient and myself). An impressive feat, no doubt. The only problem, is that this foolish student was not sterile, and was touching everything in the room and then touching the patient's infected area.

On physician salaries:

Dr. Elias Kweyamba let his salary slip when we discussed his reasons for wanting to practice in America: \$12,000 a year. U.S. Dollars.



IFAKARA MAIN STREET | John Purakal, WSU SOM Class of 2013

"Of all the forms of inequality, injustice in health care is the most shocking and inhumane."

Martin Luther King, Jr.

Sure the cost of living is fractional here compared to the U.S. and most of the developed world. Sure he works at a hospital that treats the uninsured and poor. Stunning to think about nonetheless. The chief of OB/GYN at the hospital (Elias' boss) drives a 1998 Toyota Mark II. Elias owns a car but drives a mangled mountainbike mostly. When I spoke to Elias about the salaries, he told me that physicians are the highest paid profession, as far as government-paid jobs go. Engineers next. He wants to come to America, not only because of the lifestyle, but because of the frustration he feels knowing there are better treatments or medications out there for his patients. He is helpless, not because of a lack of competency or swiftness to diagnose, but because his surroundings put him on the front line without a gun.

In America, the average starting OB/GYN salary after residency range from \$198,000 to \$261,000.

On malpractice:

As we rounded with Dr. Joseph (currently the equivalent of a 3rd year surgery resident), we are pimped only minimally. When standing around a woman with right-sided numbness, extremity weakness on her right side, pain in the right-lower quadrant of her abdomen, Dr. Joseph looked to us for possible diagnoses. "Appendicitis?" We then find out she had a mass of some kind removed 1 year back, but she does not know what was removed. Hmmmm. "Is it a peripheral neuropathy as a result of a surgery complication?" Dr. Joseph mulls it over. "Yes it is possible." "Could it be syphilis?" Again, brief silence. "Yes, that is possible too. We will put down peripheral neuropathy and refer her to internal medicine. Lets move on." So, 2 medical students from America and 2 from Canada came up with 3 possible diagnoses, and none were confirmed or ruled out, and the patient was set to be transferred. Yikes.

The physicians of SFDDH would scoff at the idea of doing "better" as Atul Gawande's suggests it. They would not be dismissing it because they cannot do better, but because everyone knows you must learn to walk before you can run.

21 July 2010: Day 9

This morning during rounds, we passed from G5P2 to G3P0, while Dr. Elias explained the treatment plans for each woman and their complications (they ALL have some kind of complication). We watched as an 8-month pregnant, eclamptic mother-to-be had a tonic-clonic seizure, as all available hands gently kept her arms and legs from causing her any harm. On the other side of the privacy curtain, a woman lay supine with her legs spread, waiting for a doctor's diagnosis. She had clearly walked a very long distance to get to SFDDH-her feet were covered in mud and dust. Unfortunately, I knew the diagnosis before the doctor carefully explained it to the weary 6-month pregnant mother. He had the gut-wrenching job of explaining that her baby's arm, which was visible to the elbow joint coming out of her vagina, was that of a stillborn. She had walked a few miles with the appendage dangling between her legs, unsure if this premature sign was an indication of early labor.

(cont.)

At the morning case presentation, Dr. Anthony Magoda, the medical director of SFDDH, held up a trophy that had been awarded to the hospital for being the best in the district. God bless the other 10 hospitals in the district.

22 July 2010: Day 10

On a brighter note, I had a chance to speak with JW (burn victim from day 1) yesterday. I was passing through the ICU looking for a different patient when I found him by the grass on the ward's patio.

John: Jambo! Habari? (Hello. How are you?)

JW: Mzuri. Hisia zaidi. *(Fine. Feeling better.)* [As I had exhausted my Swahili greetings, I called the one nurse who speaks English well to translate.]

John: Do you remember me?

JW: Ndiyo doctor. You wenzangu siku ya kwanza. (Yes doctor. You were with me on the first day.)

John: I'm a student. I was very scared for you.

JW: Mimi nilikuwa na uhakika siku hiyo kwamba atakufa. Mimi kuomba kwa ajili ya mwisho kuja. Sasa wanasema mimi ni kufanya vizuri, lakini ni vigumu kuwa na uhakika. (I was sure on that day that I would die. I prayed for end to come. Now they are saying I am doing better, but it is hard to feel sure.)

John: I hope you are doing better. I'm very sorry for any pain I caused you that day. JW: Hakuna haja ya kuwa na makosa. Ni kwa mikono yako na mikono ya Mungu kwamba mimi ni mzima, hivyo nakushukuru na mimi kumshukuru. (There is no need to be forgiven. It is by your hands and the hands of God that I am alive, so I thank you and I thank Him.)

28 July 2010: Day 16

Having finished our last day at SFDDH, there are plenty of frustrations I could choose from to vent about, but it would only be a waste of my time and yours. I've realized that the cruelties and injustices of this place, like thousands of other hospitals in developing nations, will either make you stronger or break you. The truth is, every medical student, resident and physician no doubt experiences the breaking point: that moment of helplessness or hopelessness that either pushes you over the hump that is suffering, or sends you tumbling back.

Over these past 3 weeks in Ifakara, I have seen amazing and unbelievable things. I was quick to judge the circumstances here. While I understand that the forward progress that these physicians hope for are written in medical annals somewhere in America, their resolve is uncanny. As Dr. Elias put it, "It is like trying to eat soup with a fork." The compassion and strength one must have to see your critical patients die more often than survive is the stuff of legend, and here they are, titans waging a war that they will not win in their lifetime. Sure, there are bad apples. But altruism reigns supreme in these parts, and I'm grateful I got a chance to see medicine in its most intrinsic form.

JW's prognosis is currently very poor. Aside from his septic wounds, he has now become anemic, and is not taking to the blood transfusions. He also has developed some sort of stress ulcer. He has been refusing food for 2 days and is beginning to waste away. Being the realist that I like to believe I am, I am certain he will not live another week. Without proper



John Purakal, WSU SOM Class of 2013

medication or money to support his stay, he will waste away while further complications develop.

I don't like being proven wrong. This time, I'm hoping for it.

18 August 2010: Feedback

I realize now that my responsibility to this program did not end with my flight back home. After having two weeks to re-submerge myself into the routine of lecture, late-nights and cold coffee, I've noticed that the majority of my conversations still revolve around my experiences in Ifakara. It is hard to describe to people the things I saw with any brevity, but the vigor with which I talk about it coupled with the enthusiasm I have received has let me know that my job now is to spread the word.

We are very lucky to live the lives we live. We eat well. We enjoy the luxuries of life from time to time. We even blog. Most relevantly, we have a fighting chance against nearly any ailment when we step foot into a hospital. Our physicians are not only the brightest in the world, but they have every resource imaginable at their (sterile) fingertips to ensure the best effort is put forth. Going forward in my medical training, I will not only strive to keep the memories of the people and things I saw in Africa in the forefront of my mind, but keep a positive attitude in the midst of crisis knowing, "it could be far, far worse."

I received an e-mail today. It was from Elias. It reads: *Hi JD, am sorry I did not let you know about JWs status yesterday as I promised. It's painful that he died (passed away) on 9th August; the immediate cause of death is not clear.* 🗷

PELICAN | Dawn Yargeau, Office of Admissions



"When it comes to global health, there is no 'them'... only 'us.' "

Global Health Council

Beyond the Hospital

ROOTS EXPOSED | Kathryn Maysen, Staff Support, Department of Surgery

(Dedicated to all who have suffered as a result of war and genocide.)

The deeper into reality the more tree roots got exposed, right side up. Like tender nerves murdered

in cold air, they grow deep into the Soul of who he is was... could have been.

And over layered rocks down through the gorge lay the broken bears of his childhood. Pieces of

Innocence strewn across the shadows of his Warsaw ghetto remains of Holocaust past.
Where individuals, Trees of Life

Uprooted from one country to another found connections to crevices of higher truth, slim hope hung on Wailings Wall

Where dark eyed boy with his hands raised high died a friend, a brother, on that cold slab ground before he'd ever gotten to know him... and

So it goes...the crisis of consciousness

churns on over and over and over again. Like some dark twister it lays waste across the shocked landscape in layers of parched riverbed, cracked under the Sudan or Congo sun

Millions of broken refugees left to wander through drought stricken miles forced to flee unspeakable crimes ages of genocidal madness.

The draining of spirit lives on. Innocuous beast it broadcasts through waves of lies living in air blaring its religion of commercialism

at new Shoots of Truth murders Tree Roots all over again. Lies butcher young souls... and words from heavens conference given by

Great Mother, New Father peacefully sowing Universal Laws that might otherwise repair atrocities born of indifference

terrorism, racial and social injustice, the bombing of whole civilizations back to childhood...

Where what was before, is no more. All left is a patched reality of souls caught in the crosshairs. Of desolate land Of Broken Bears

Of twin columns with smoke spewing up top... 3

THE VAMPIRES OF NIGHT | David Wildt, WSU SOM Class of 2012

I'm going strangle a love poem tonight.
I'm going to tear every word from its line
and roll each of them up inside my fists
and even if they try and slip between my fingertips
I'll juggle their inked existence in the air
until my hold is strong enough that every last letter dies.

I have never stood through where I might die – but as I bury these letters tonight I might come close to tasting that stale air as I leaf through the sticky rotting bodies between the lines of Dracula's pages as I paste them on his wing tips, praying I'm diligent enough with quiet fists

to supply ample sustenance for his fists to snare as he wakes from a world where no one dies and dribbles each letter like a drop of blood from his teeth's tips. And when I close the pages on his decadent feast, as the sun gives to night,

and the beloved's bloody letters disappear between the lines, I'll open the door of the library into the corn field's air

and emerge absolved from the confines of bookish air the way love poems make you want to smash your fists, and drive between the left lane lines on the highway south down the meridian because I don't care if I die

trying to beat my ego as I chase the night past the reach of my finger's tips.

When I finally reach her, just before she tips it all off to the damp morning air, giving the power reigns of night over to the sun's empty fists, I'll have to ask before she dies, "Could I have caught you in the meridian's lines?"



And she responds with compunct and acid-lacerating lines, "You were never close to my heel tips.

And if you want to know the worst way to die, it's to let love transpire in the air, kicking its fists screaming at the Vampires of Night."

I never wanted to die strangling the lines on the highway at night; and now my fingertips, which feed lovers to the air, will never reform fists.



Ginger Keiffer, Southeast Michigan Center for Medical Education, Assistant Director

FORGOTTEN HOME | Robert Guglielmo, WSU SOM Class of 2014

Whose home this was, so long I knew; The song is sung, the laughter through. She'd catch my eye o'er yonder hill; Our dawning chance, the sun, it grew. The dewing leaves, they'd sleep so still, Wind played her hair, a breeze so chill. Our hearts so young, could not but feel, Their futures were a test of will. Try, fire may, but would not steel, We would stay true; vain sense of real. She left me right, I knew it so, As turning whims began to wheel. A home, once mine, too long to know, Nostalgic spurts, they come, they go. And pass, I must not say hello, I pass, I do not say hello. 🗷

FLICKER | Brandon Busuito, WSU SOM Class of 2014

Softer with time, change is scarce What once dawdled now runs low Yet, fearsome becomes fragile Poised, waiting a final blow

Seems years had been lost but had Too quickly without enough Memory left behind for time The gates now open, abrupt

Comfort becomes coal and wisps The old guide must lose the way Just fossils of warmth now left Cold loneliness, life not stayed

Now comes last wind, blusters through Despair, she is suddenly gone What meaning is left when the Light of life is taken, all is wrong CS

Ginger Keiffer, Southeast Michigan Center for Medical Education, Assistant Director



In 1977, I met the love of my life. My plan was to buy a yellow Pontiac, until my mother suggested we take a look at the new Chevy Monte Carlos. She had seen them on the road and thought they were quite striking.

When we got to the showroom, the dealer took us back into the garage area to show me the car in yellow. There, standing next to the yellow car, was the shiniest, spiffiest, most gorgeous hunk of Detroit steel that I had ever seen. It was a new, 1977 black Monte Carlo with a black cordoba top and black interior. He was so handsome! We looked at each other, and it was an instant connection that lasted until the day we parted.

I didn't actually name him. If I had, I would have chosen a name with style and distinction befitting such a masterpiece. He was named by a coworker who came into the office on the morning I first drove him to work and announced, "Brownie and I just parked next to Blackie." The name was so funny I chuckled and thought, "Yes, he does have a scrappy, street-smart way about him." My mother was also amused by the name. It reminded us of that old Deborah Kerr movie in which she had a wonderful, dependable old friend who was always there for her. His name, too, was Blackie.



Blackie was with me through many happy periods of my life as well as some pretty tumultuous ones. More than once, I cried on his shoulder as I drove home. He took me safely through rough neighborhoods. He was always there and always dependable. He started in subzero temperatures and sailed down Jefferson while his newer, younger counterparts say choking and gasping by the wayside.

When his body first began to show signs of aging, I took him to the dealer for his first face lift. They gave me a little car called a Cavalier to tool around in while he was undergoing surgery. I stopped by on a regular basis and peered through the windows to catch a glimpse of

CELLO | Saba Zabetian, WSU SOM Class of 2012

"I do not know a better training for a writer than to spend some years in the medical profession."

W. Somerset Maugham

him and to wave. He looked so pathetic in his pre-operative state, but I just wanted him to know that I was there and waiting for him to come home. The mechanics all knew me as I hovered by my baby. I left instructions that he be brought in each night and I expected updates on his medical condition. I found out later that they used to joke and tell one another, "Don't forget to bring *him* in tonight. How is *he* doing today?" When he was finally ready, he was as glorious a specimen as the day I first saw him. One of the mechanics took a photograph of Blackie for himself. Obviously a man of taste.

Before Blackie, I had two other cars. My first car, which I purchased in 1960 after saving my money for almost four years, was a 1956 Ford Fairlaine 500 named Myriah that I bought from Johns Brothers used car lot. That car could go like the wind! Unfortunately, it would do so even when your foot was not on the accelerator. Since I was a young and inexperienced driver, I thought that was good. After that debacle, I decided to buy only new cars. My next car was a yellow 1968 Pontiac named Old Yeller. Old Yeller and I parted when he decided he preferred driving in reverse instead of forward. But Blackie was a gem! He was a beauty combined with craftsmanship. He was, at that time, a moderately expensive car. I paid all of \$5,575 for him. I felt as though I had truly entered the luxury car market.

My brother Tom, perhaps fearing for my sanity, told me that Blackie was just a car, nothing more than a few tons of steel with no feelings. O, ye of little faith! I beg to differ. I think that which we cherish and love, including inanimate objects, become imbued with out spirit much like a psychic can hold an object and sense the owner's presence within it.

As the odometer rolled over and over and the ravages of time took its toll, my logical mind told me that I could no longer afford what it would take to restore him to his original condition. The emotional part of me prolonged the inevitable for as long as I could. When the decision to sell him became final, I took him for a Sunday morning drive and gently broke the news. I thanked him for his constant friendship, his dependability, for all our experiences through fifteen years of joy and sorrow. I reassured him that it was not his fault and that our parting was inevitable. I then kissed his steering wheel and took him home.

The dreaded day arrived and I stood by him as his license plate was removed and keys and papers transferred. He sat quietly at my side, each of us sensing the other's pain. I watched as he was driven out of my driveway and out of my life. He did not look back. He quietly accepted this final phase of his life with dignity. "Goodbye, old friend," I murmured, and I went inside and cried.

I have had other cars in my life with luxuries that Blackie could never have dreamed existed. Although I have been fond of the others, I have never experienced that special attachment that Blackie and I shared. I saved his hood ornament which had fallen off in a car wash, and sometimes I pick it up and hold it. And when I do, I know that wherever he is, he's smiling. $\mathfrak S$







{From left} HANGING GARDENS, KODAIKANAL, RUSSIA | Beth Stallman, WSU SOM Class of 2014

CLIFF-HANGER | Deepak Gupta, MD, Resident Anesthesiologist, Detroit Medical Center

I had a dream
I am hanging off a cliff
All set to slide into oblivion
And none reaches out with hand!

Whether I slid from stable heights! I don't know! Whether I climbed up high from depths! I don't know!

There are people on both sides! Enjoying their cup of tea at the top! Indifferent to their plight in the depths! But none pays attention to me!

Because I am not one of them!
Because they are not hung!
Because they are not viewing both worlds!
Because they think they can never be me!

However, they are mistaken! People will keep sliding! People will keep climbing! And someone will be stuck in between the worlds! If they keep ignoring me If they keep by-standing me They will lose me And with me, their hope!

Hope for understanding the transition! The transition from curable to palliative! The transition from prosperity to poverty! The transition from order to chaos!

I am losing the grip! Please reach out to me! Please don't allow me to fall to depths! Please inspire the people at nadir to climb high again!

Because you will not abandon any cliff-hanger!
Because you will stick out your head, heart
and hands for them!
Because you will preserve hope in the society
And ensure the reversal of the transition!!!

HERE'S WHAT WE SAW AT THE FISH HATCHERY | Howard Fischer, MD, Children's Hospital of Michigan

They take some brown trout and they squeeze them to get their eggs and get their sperm which are mixed together and the fish returned to tanks.

I wanted to know:

Do the fish ask afterwards for a smoke?

UNTITLED | Sunali Wadehra, WSU SOM Class of 2014

a lone flower seeks shelter on the ridge shaking and crumbling

a sprouting green survivor uplifted ©3



DAISY DELIGHT | Fran Jagger, RN, Henry Ford New Center One- Breast Imaging

"Nothing will sustain you more potently in your humdrum routine, as perhaps it may be thought, than the power to recognize the true poetry of life."

Sir William Osler

FLORAL FIREWORKS | Fran Jagger, RN, Henry Ford New Center One- Breast Imaging



MY MOTHER TOLD ME A STORY ONCE | Maya Holtrop, WSU SOM Class of 2012

My mother told me a story once. I don't know who the people in the story weremy great-aunt and her friends, maybe, or my mother's grandmother, or an old friend of the family.

So then: the setting is Germany, in old-fashioned times, not very old but old enough-- perhaps between the wars. This great-great-aunt of mine was traveling by train, and she had friends with her. And my aunt became sick with the motion of the train, so she went to the toilet. In these times the toilets in trains had no water; they were old-fashioned toilets and opened directly over the tracks.

My great-aunt knelt down-- awkwardly; she was an old lady and troubled with arthritis-- and leaned over the toilet. She saw the tracks beneath her: they bounced in her vision, and she felt even more nauseous.

She vomited. She felt a little better after that, so she vomited again. And then she felt something loosen in her mouth, and out of her mouth slipped her false teeth, out and into the toilet, and through: the train traveled quickly and she could no longer see them, but she knew that somewhere on the tracks lay her teeth.

My great-aunt went slowly down the corridors of the train to her friends, wobbling with the sway of the train, a little stunned by events. She told her friends what had happened. Her friends were all old women as well, and with her teeth missing they did not understand my aunt very well, but finally everything was clear.

"So then," said one. "We will get off at the next station and look backward for your teeth."

"Ja," said another. "And then you won't be ill anymore, either."

They did this. I imagine them bent over like pecking birds in somewhat shabby black, scarves covering their gray and white hair, tiny in the expanse of fields surrounding the train tracks. For women of their age, the search was long, and their backs were hurting almost at once, but finally one called, "Here!" They collected themselves around the teeth, cleaned them with their handkerchiefs, and presented them to my great-aunt.

She examined them carefully; then "Yes," she said, indistinctly. The teeth went into her mouth, and she smiled. "Thank you," she said.

My mother has always thought that this story is the funniest thing in the world, and that I ought to write it down-- the family fiction is that I am a writer. I always tried to convince my mother that it was not my story, and I could not rightfully transcribe it, but here it is. You may decide for yourself who had the right of it. $\mathfrak M$

THE CLOTHESLINE | Kathryn Maysen, Staff Support, Department of Surgery

One whiff of that just washed lemon fresh linen bedding wafting through the reverie of my weekend chores, landed me back in my childhood days of low tech clothes dryers roping through our backyard from porch to garage waiting for sheets, underwear, pants and pins to hold them.

There was something strangely therapeutic about that smell of sundrenched lemon fresh cloth flapping in the breeze with me, mom, the wind and the birds feeding on our weekly ritual,

that makes me long to slow down, from today's high-tech grind.
Feel, once again, the wind brushing sheets up against and concealing me in its folds while happily playing hide and seek with the birds and mom,

meditating over socks and underwear hung for all the world to see drying secrets and shame, though neighbors called you by name over fences dividing yards not hearts.

Wouldn't it be refreshing if there could be but one gigantic clothesline stretching across the globe through invisible fencing over the backyards of America,

every sea to shining sea, and the only thing left hanging out to dry is our one shared truth...



STUDY OF FLOWERS | Michella Sakala, WSU SOM Class of 2011

"As a writer I have never felt that medicine interfered with me but rather that it was my very food and drink, the very thing which made it possible for me to write."

William Carlos Williams

"This day will not come again" ~Thomas Merton "Listen far beyond hearing and call the unheard" ~Lao Tsu

How lovely was the blue-black empty night of summer breezes, weeping clouds, space and twinkling pin-points in brilliant passing that beamed on dewy carpets of green and night chirping where my body laid.

My - once stunned eyes relaxed their gaze upward, head rested on woven fingers, one leg bouncing over knee, while a single toe traced...caressed each star pattern that swept panoramically before me.

> Under pensive, downy skies somewhere in the far off distant solstice night of 1986, where nothing comes again, everything repeats itself; and you see through the lens

of your own soul an echo of transcendence rise to heaven's challenge, hear itself explode into a milk river of stars and seven sacrificial offerings sky-riding their thunderous thrust of exploration toward a milky-way home...and no one's return,

I couldn't help but contemplate the precious "here" of you and me, and if we'd felt the dearness of our tomorrows, each other, last we spoke.

So, I let myself expand, contract, breathed in the blue-black twinkling temperate breath of summer nights, as though my last; drank down that milky river whose stars never shone so brightly as in...the summer of "86".



NEW YORK CITY | Megan Wing, WSU SOM Research Assistant, Psychiatry and Behavioral Neuroscience

"We are here to add what we can to, not to get what we can from, life."

Sir William Osler



Ginger Keiffer, Southeast Michigan Center for Medical Education, Assistant Director

MAID MICHIGAN'S | David Wildt, WSU SOM Class of 2012

I'll tell you up front, She uses Elmer's glue to paste a flower on each shoulder for the hunt – an invincible symbol of Her power.

The men must pluck them as She twirls up the shores of Lake Michigan. Two men always snag the stem and begin their bloodshed-letting bargain:

they dig in their arms with garden spades to plant away their prize – the one who wails with most harms is buried away from their lady's eyes.

And the other who didn't scream at all: will be her husband and slave by night fall. I

Our First Patient

Dissecting a human cadaver has long been considered a rite of passage into the medical profession. The professionalism and ethics surrounding this long-standing tradition of learning human anatomy is frequently addressed in medical school curricula, yet its transformative impact on budding physicians is rarely considered. In April 2010, four WSU SOM students traveled to Iowa City to attend the conference "The Examined Life: Writing and the Art of Medicine." Here, they gave a presentation entitled "Our First Patient- Reflections on Dissecting the Anatomy Cadaver" wherein they shared reflections on this subject, written by their fellow medical students and physicians. We share these pieces with you here.

THE FIRST STEP | Ryan Tansek, WSU SOM Class of 2012

In my head, the chant 'You will not puke. You will not pass out.' ran over and over again. My palms and brow were slightly damp and I could already feel the smell of the room clinging to me. Although fear was my overriding emotion, there was an underpinning of excitement and anticipation.

You will not puke. You will not pass out.

I glanced up at each of the strangers surrounding the table with me. We each had put on a confident facade as best we could, but I was obviously not the only nervous person. I looked around the room. There were a couple dozen tables lining the sides of the room, each with wrapped body on it and each with a similar group of wide-eyed, throat-clearing students surrounding it.

You will not puke. You will not pass out.

Two grinning professors stood in the middle of the room. "Well, get started already."

You will not puke. You will not pass out

We started to unwrap. As the plastic began to fall open, it revealed a skinny, liver-spotted torso-- a very normal torso. It was a body, that was it. I stopped the self-directed laughter that began to form. Reading the first line of the dissection guide for the tenth time, I grabbed one of our scalpels. I could do this.

You will not puke. You will not pass out.

My first incision was done. A very shallow, not terribly linear incision, but it was there and I had done it. I looked up at my fellow students and a grin spread across my face. We could do this. We had thought that maybe we were medical students but now we knew that we were. We were going to be physicians, and we had just taken our first step.

We did not puke. We did not pass out. And we now knew we never would. ${\cal S}$

MATTER | Jessica Heselschwerdt, Class of 2012

There is a theory, in anthropology, that what disturbs us is simply "matter out of place." We are repulsed by dirt on floors but not in flower pots; hair so benign on scalps becomes revolting in a shower drain. And what is more out of place than a dead body in a plastic bag next to scalpels and text books? Bodies, once expired, are better suited for caskets and memorial services, to be preserved, dressed, and returned to the ground-- dust to dust. Blades are meant to cut steak, tweezers to pluck out splinters and stray eyebrow hairs. Muscles and nerves are meant to stay hidden under our skin and quietly provide the kinetics to move us through our days, not to be held by hemostats and blue-gloved fingers in an attempt to match chalkboard diagrams with tangible form.

I was no stranger to death. I lost three great-grandparents at such an age as to be able to remember, if not details, the emotions I felt as I held my mother's hand and sat quietly in wood-paneled funeral homes surrounded by flowers and mourners. I was a hospice volunteer, and just months before anatomy lab had attended visitation for my youngest patient, who at fourteen was buried alongside a cardboard Chuck-e-Cheez hat, a memento from his last and happiest birthday. I had seen bodies before, and it was neither death nor the body itself that concerned me.

It was the cutting into it. I was torn. There would be two options. One: pretend it's not a body at all. It's just tissue, just molecules, just a Frank Netter illustration in 3-D. To that end, the body was wrapped head to toe in plastic, with additional opaque bags over the head, hands, and feet, so that one could unwrap only an arm or a torso at a time, and in focusing on parts, ignore the whole. Option two? Recognize the body as human, and cut it anyway. This option seemed unfeasible.

So, as anatomy began with a cursory introduction and a second glance over the page of Grant's Dissector, I took my scalpel in hand, and I cut. I was shocked to find that my squeamishness faded within hours and I soon realized that I both enjoyed and was proficient in the art of dissection. I looked forward to anatomy lab-- only here

"I profess to learn and to teach anatomy not from books but from dissections, not from the tenets of philosophers but from the fabric of Nature"

William Harvey, from De Motu Cordis, the Circulation of Blood and Other Writings

could I make sense of the diagrams and terms; only by running my hands over the muscles and skimming adipose from arteries could I understand their connections. Once, I caught myself bragging to my mother over the phone about how good I was at dissecting. "Everyone came to see our brachial plexus, mom. You could see every single branch, perfectly." Her silent reply suggested that the ability to successfully dismantle human flesh was not an attribute she found enviable.

Did I think about the body? Not much, at first. Our group did not give her a name. Someone suggested Olga, and another Nancy.-- but no name stuck, and I preferred it this way. You can't cut into Olga or Nancy. But an anonymous pectoralis muscle? Sure.

And then we reached the hand dissection. That day, we unwrapped the tape encircling the body's wrist and peeled back the baggies enclosing the fingers. I stopped, dropping my scissors clanging onto the floor.

She had nail polish on. Bright, Barbie-pink, neat and unchipped. I had to close my eyes and clutch the edge of the metal lab bench for a moment, reminding myself to breath normally. Textbook models don't wear nail polish. Piles of insentient tissue do not wear nail polish. People wear nail polish. Suddenly I was overcome with visions of the person that once inhabited this body, standing in the beauty aisle at Walgreens, choosing this color to match her flowered dress. I pictured her daughter helping to carefully apply polish to each nail in clean lines, blowing on them to dry them faster. Suddenly, I wanted to know her story.

But time does not wait for existential crises. There was still a dissection to be performed-- nerves to find, muscles to unearth. I picked up my scalpel, held the body's hand in my own, and resumed cutting. As the weeks passed, we not only cut the flesh of her hands, but we removed her lungs and heart, dismembered one leg, bisected her head. We must have learned to leave behind our ideas of what scares and disgusts us-we must have subconsciously reclassified our notions of matter altogether-- because we got through it all.

We never did name our cadaver. I reconsidered, later, but decided against it. Whomever had inhabited this body before it reached our dissection table already had a name. Maybe that name was Olga or Nancy, but more likely it wasn't, and it didn't feel right to assign her a new one. Maybe her story was better left unknown and indefinite. Maybe her life had been exuberant; maybe her life had been tragic. Maybe she loved romance novels and gospel music and cold lemonade on hot days. Maybe she had worked her fingers to callouses to make ends meet; maybe she was skilled at watercolor and knock-knock jokes. Maybe she died wondering who would remember her, and what her life was worth. She probably never pictured herself in pieces, but in pieces she became infinite as I committed her to memory and take her with me to every life I touch.

ANATOMY LAB | Donald Levine, MD, Internal Medicine, Detroit Medical Center

Anatomy lab. Forty-three years ago, so the memories don't exactly come back in a rush. Yet some things are indelibly etched on my consciousness, not particularly meaningful things, just things that for some reason must have made an impression. First, there was the smell. Apparently formaldehyde. At first it overpowered everything; any emotion that might have been engendered by the significance of entering into a human's body was immediately set aside by the searing odor and the burning sensation in the eyes. There was also the first day's grammar lesson: it's not die-section, it's dis-section. Thanks, Dr. Mizares. Finally, there was Bob Kell. How did a classmate of mine, another first year, become one of the instructors? I, a previous law student, was now in the midst of classmates whose prior lives actually involved the sciences, and it dawned on me how different the competition would be. \bigcirc 3

I THOUGHT I SAW MY FATHER | Diane Levine, MD, Internal Medicine, Detroit Medical Center

Hundreds of students just stood there. Some were laughing nervously. Others stood quietly. Finally, the professors commanded, "unwrap the bodies." I carefully peeled the plastic off our cadaver-- and saw my father. I stared, transfixed. Then I left the lab to look for a phone. This was 1978 and cell phones had yet to be invented. I called my mom. "Mom, where is Dad; is he ok?" I was more than relieved to hear he was in surgery, and not the man on the table I was about to dissect. $\[\mathcal{O} \]$

TUMOR BURDEN | Miriam Levine, WSU SOM Class of 2011

The smell hit me first. It was almost sweet and it was nauseating, the sort of smell that gave one a headache. The bodies themselves were still in white plastic bags. I didn't want to see the face. I didn't really want to start dissecting at all. Couldn't we have lingered in the lecture hall a bit longer? But no, here we were, and all too soon we were unzipping our cadaver's bag and undoing the layers of plastic sheathing it. *It* was actually a *she*, a *she* with dark pink nail polish and a square, bloated belly and a mastectomy. My grandmother was a breast cancer survivor, status post mastectomy, but alive and well, thank God. I couldn't help thinking how things could have gone differently. And then a strange twist of fate on day 2: one of my teammates suggested my grandmother's name for our cadaver. Naturally I objected, and we chose the name Dolores.

I will never forget Dolores's abdomen. It was unrecognizable. We learned she had died of metastatic breast cancer, but we didn't really understand what that meant until we saw what had once been slimy yellow omentem but was instead stiff and covered with white barnacles-- except they weren't barnacles. They were tumors, and they had conquered her entire abdomen to the point where there was nothing left for even the instructors to recognize. This was what metastatic cancer meant. I hoped Dolores had not been in too much pain before she died, but could only imagine horrible, twisted agony. I pray I was wrong.

"Open up a few corpses: you will dissipate at once the darkness that observation alone could not dissipate."

Marie Francois Xavier Bichat, from *Anatomie Générale Appliquée à la Physiologie à la Médicine*

MY FIRST PATIENT | Lara Zador, WSU SOM Class of 2011

As it turns out, I'm normal. But, as is often the case in medical school, normalcy can become a stranger, even an enemy, when making the transition from civilian to physician. In the military, boot camp strips incoming soldiers of their former identify. In medicine, we have Gross Anatomy. This class, often the first class taken in medical school, forms a creaky bridge between old and new notions of normalcy. We are broken down and then built back up. This is an *irreversible* process. And so in the weeks before starting medical school, I passed many sleepless nights, restless and scared, turning one worried thought over another in my mind. Am I smart enough? Tough enough? Scientific enough? Humanistic enough? Committed enough? When is enough, *enough*, in medicine? And what about The Body?

The Body waits for every medical student. The Body is a right of passage, a lesson, a teacher. The Body is you and me and everyone else, eventually. I didn't want to meet The Body. I did not want to lay my hands on The Body or cut into It. I didn't want to unwrap bandages, lift closed eyelids, look into the mouth that no longer inspired, but endlessly expired. Normal, normal, normal. Who *would* want to do that? But, to become a doctor, we must. We must set aside some of the most fundamental repulsions in the service of humanity. We must dig into wounds, sometimes even create wounds; we ignore vomit, blood, and feces: we must go into the darkness to see the light.

In medical school, language is everything. In fact, much of medical school is a four-year language immersion program where students are taught how to transform the everyday machinations of the human body into clinical language. We then use this language as a tool to learn to think like doctors: analytical, methodological, efficient, consistent and careful. Physicians do not use the term "dead body." We use the word: cadaver. During my Ob/Gyn rotation, the attending obstetrician referred to a recently miscarried fetus as a "pathological specimen." In the eyes of medicine, a miscarried fetus less than 20 weeks in gestation never had the remote viability of being referred to as a cadaver. Medical terminology helps us; it allows us to describe our observations, treatments and diagnoses. It does not reveal, however, how much we care. And on the first day of medical school, we know nothing. We are a bunch of saucer-eyed, intimidated peons wearing crisp white lab coats. We are formaldehyde naïve.

Here's a scene for the dinner table: Medical school day #1. Three-hundred medical students are gathered in the school auditorium. The three Gross Anatomy professors stand in

(cont.)

the front of the lecture hall discussing some ground rules. Ground rule #1: Don't take photos, #2: Don't be lewd, #3: Don't take any gold teeth. Then we watch a 15-minute instructional movie on how to dissect The Body. We are taught which scalpels work best on different human tissues. Skin and muscle are tough. Organs are soft. We are taught how to peel back layers of the human body. And that's it. Credits roll, lights come back on. That's the extent of our emotional and intellectual preparation. En masse, we make our exodus from innocence to initiation. We go to the Cadaver Lab.

First stop is the locker room, where we change from our shorts and T-shirts into scrubs. We gather our dissecting equipment and lab manual and then betray our instincts and march into one of the most grotesque learning opportunities in existence.

The cadaver lab is a series of four adjacent rooms, windowless, lined on both sides by rows of stainless steel tables. On each table lies a cadaver in a body bag. This is the kind of stuff, in another context, you would read about in war tribunals or hear on the evening news. Death hangs everywhere. Earlier in the day, we were assigned a dissection table num ber. No one has to tell us how to behave; we are naturally subdued, quiet, and scared. Death

is something we should avoid, grieve and mourn. Death is not something we should approach with open arms, not when it's staring you in the face, inviting you in. There is a smell. It is cold. It is a negation of what we know. Medical school had officially started.

I am assigned to dissection group #30. I approach the table. The Body is in there, wrapped in bandages, zipped up in a body bag. Not even a little bit alive. I have never stood this close to a dead person. I meet my other group members. A student in another group passes out. There are gasps and a bang. He comes to, confused, embarrassed. "I'm okay," he says and stays with his group. Tough as nails.

This precise moment was the moment I feared the most: the moment I meet my cadaver. Most students have first-day-of-school jitters, but I was almost tortured by the anticipation of this moment. In the weeks leading up to medical school, I would lie awake at night, terrified. I don't like Death. It has taken me years to even be a little bit comfortable talking about death, how we die, who we know who has died, and so on. In those early morning insomiac hours, I grappled with these issues. How do I protect my emotions and still proceed with this dispassionate view of human beings? How can I stay sensitive and still function in (cont.)

"Gross Anatomy lab is not just about learning anatomy. It is about confronting death."

Mary Roach, from *Stiff: The Curious Lives of Human Cadavers*



TABLE 50 | Sean Mutchnick, WSU SOM Class of 2014

the medical world? In other words, how do I stay normal and also transcend the emotional and physical turmoil that physicians witness every day? There are no answers, especially at 3am two days before school starts.

Recently, I visited the office of a prominent Emergency Medicine physician in Detroit. I went to his office and discussed these issues because, in the busy Emergency Rooms of Detroit, life and death exist side by side. In one room, a woman delivers a baby; in the next room, a woman passes away. Young people die of gunshot wounds, and doctors try like hell to prevent death and other catastrophes. I asked how physicians tolerate this medical roller coaster. At the end of the day, I asked, how you can leave work, kiss your wife, enjoy dinner and sleep through the night? I told him about a troubling experience I had, witnessing the death of an elderly patient. I felt that she died alone, even though I was in the room, standing only two feet away from her as she breathed her last breath. "You humanized her." That was his response. If we recognize the humanity in every single patient, we will emotionally respond. We can't help it; that's what it means to be human.

Standing there in the cadaver lab, I had already fully humanized The Body. And that is why I was having such a strong reaction to Gross Anatomy lab. Normal people do not dissect other people. Did we learn that from Sesame Street? But, somehow, in medical school, you leave that protocol behind for the sake of learning. The night before school started, I had an epiphany: I would love The Body. Approaching The Body with love meant that my behavior was motivated by compassion, and that took the crucial edge off of the moment I unzipped the body bag. I would stop trying to dehumanize, because I didn't have the tools, the language or the experience to do that in a healthy and clinical way. I carried that love with me to my first day of school. "This was a person, just like me," I thought as I noticed that The Body was a large man, muscular and over six feet tall. For some reason, all the cadavers were lying on their belly, and we were instructed to remove the body from the bag and flip the body over so that they were lying on their backs. This required all five people in my dissection group to use all their strength to lift and turn over the body. He was cool, stiff and rubbery. I thought about his family, his favorite food and his last meal. The love allowed me to connect to him, to relate to him and it made the whole ordeal less frightening. This was not a horror movie. This was not a criminal offense. This was going to be okay.

My group huddled around the body and we looked each other in the eyes. It was time to lift and flip him. Our bodies were going to make contact with his body, with death. "Wait!" One of the group members stopped us, "I named him George, is that okay?" We

looked at each other and knew. In our own individual ways, we had all bridged the divide between our living bodies and our cadaver's body by recognizing the one common thread: our humanity. We gave him a name. Then, with some grunting and gasping we lifted and turned him over. His large frame took up almost the entire table. Now it was time to remove the bandages.

We did not know much about George. We knew that he was 46 years old and that he died of a lung infection. That's it. The rest was up to our imagination. Later, we were to discover that he was a smoker (lots of black soot in his lungs), he had gallstones (which look like aquarium rocks from a fish tank), he was strong and muscular and probably worked with his hands. He had his appendix out. He was circumcised. He was black, slightly bald with brown eyes and good teeth. He was a human who laughed and cried and left us a legacy we will never forget. In the moment before we removed the bandages, another group member suggested we say a quick prayer. I am not religious, and between the five members of my group, we were Jewish, Baptist, Catholic, Sikh and Muslim, but we all took a minute to quietly observe the moment. I sent my prayer out to George, I thanked him for donating his body so that we could innocently and naively peak into the other side of human skin. I told George that I loved him, and I meant it.

And then we removed the bandages. It is hard, but as time in the Gross Anatomy lab turned from days to weeks to months and George became familiar and unrecognizable, we learned how to become fascinated by the human body and all of its variations, both normal and abnormal. I saw cancer tumors, and the ravages of alcohol on the liver and cigarette smoke on the lungs. I held a human heart in my hands and explored the ventricles so perfectly designed to pump blood. The body is designed to live, not to die, and we celebrated the beauty of such a design. Over time, I learned that I am humanistic enough and scientific enough and committed enough. Over time, I learned that it's impossible to make sense of the human experience—to really know when enough is *enough*—but we can all try.

I am reminded of a Native American saying, "The cure for the pain is in the pain." I had to plunge into the abyss of medical detachment to discover my capacity to love a body I never knew and yet know more intimately than anyone else. And, thinking back to my four years of medical school, to the joys and pains and the fluctuations between supreme confidence and abject insecurity, the saving grace has been the moments when I re-connect with my capacity to love. And nothing is more normal than that.

"Those who have dissected or inspected many [bodies] have at least learned to doubt, while others who are ignorant of anatomy and do not take the trouble to attend it are in no doubt at all."

Giovanni Battista Morgagni

FutureDocs

BUDDY | Esmaeel Reza Dadashzadeh, WSU SOM Class of 2013

I miss Buddy. That is what we decided to call him. When we saw his face, we heard his laughter. When we held his hand, we felt his strength. And when we looked into his eyes, we saw *life.* In our own way, we all saw the same jovial and good-natured personality before us, and so my lab mates and I decided to call him Buddy.

Over the next four months, Buddy became our best friend. He was our leader and our guide, our mentor and our partner. He gave us confidence in times of struggle, strength in moments of weakness, and company when we were alone. He was our coach, challenging us to work harder, and rewarding us if we worked together. He was our first patient. He symbolized the respect and the responsibility bestowed upon us as future physicians, and urged us to never misplace that trust. In times of doubt, he would gently remind us where we were, and why we were here. With apologies to the faculty, Buddy was, hands down, our favorite anatomy teacher.

Today we see that there is another story to Buddy. Before he left everything to mold us into the physicians we will become, Buddy was a father and a mother, a brother and a sister, a husband and a wife, a neighbor and a friend. Buddy was a part of your family, and then through your generosity, he became a part of ours. Buddy was the most amazing gift any of us have ever received. He was a gift that has left us humbled beyond belief, a gift that I personally do not feel as though I have yet earned. But it is ok, as I am blessed with the opportunity to spend the rest of my life to prove myself worthy of such a venerable donation.

My religion teaches that if one were to save a single life, it is as though she has saved all of humanity. If I am lucky enough to be in *that* position one day, and to save *that* single life, it would be a team effort. Buddy and me. 🗷

"You begin to learn to heal the living by dismantling the dead."

Christine Montross, from Body of Work: Meditations on Mortality from the Human Anatomy Lab

FutureDocs is an annual event for the children of Wayne State University School of Medicine alumni, donors, faculty and staff ages six to twelve. At this event, children have the opportunity to explore many interactive stations, from ultrasound practice to the study of gross specimens from the pathology lab. For the second year in a row, the Wayne State University School of Medicine Writing Workshop joined in the effort to educate tomorrow's healthcare leaders by sponsoring a workshop for medical writing and design. At this workshop, our future doctors wrote about why they are interested in healthcare and designed beautiful works of art.

We are very pleased to be able to share their work with you in this section of the journal. Special thanks to Caitlin Biedron (WSU SOM Class of 2014), who photographed the FutureDocs participants and their artwork.



Barbara Reid

Alexis Baylor









Estrella Sanchez and Alondra Castañeda

Anna West

Alina Hazime

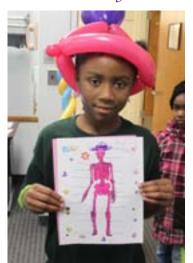
I want to be a doctor because I could help others in my community. I could help cure, and makes others feel much better. I would be happy by responsibly doing my job. Being an orthopedic surgeon would be my future job!

Amira Rabbah

"Children are the living messages we send to a future we will not see"

John W. Whitehead





Ajay Sheth

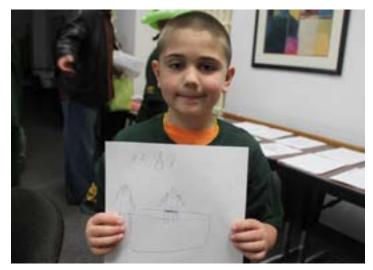


Raquel Rosenfeld









Dalia Rabbah Hassan

"The pursuit of truth and beauty is a sphere of activity in which we are permitted to remain children all our lives."

Albert Einstein

I want to be a doctor because I want to help kids that need medical assistance in any way. I want to help people that are less fortunate than me. People all over the world need doctors, and I want to be one of the doctors that change the world.

Reem Hamad

Skylar Fletcher



Reem Hamad



Omar Hamad





Deven Sheth

I want to be a doctor because when you are a doctor, you save lives! I think saving lives is so cool. I think being a doctor is like the most important job in the whole world. I also want to be a doctor because my father is a medical doctor. Soon when I grow up, I want to find a cure for cancer!

Mohamad Hamad

Mohamad Hamad

